

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave.St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-015598**Date Inspected:** 08-Jul-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:****CWI Present:****Yes No****Inspected CWI report:** **Yes No N/A****Rod Oven in Use:** **Yes No N/A****Electrode to specification:** **Yes No N/A****Weld Procedures Followed:** **Yes No N/A****Qualified Welders:** **Yes No N/A****Verified Joint Fit-up:** **Yes No N/A****Approved Drawings:** **Yes No N/A****Approved WPS:** **Yes No N/A****Delayed / Cancelled:** **Yes No N/A****Bridge No:** 34-0006**Component:** Trial Assembly, Bay 4**Summary of Items Observed:**

On this day Caltrans OSM Quality Assurance (QA) Inspector Christopher D'souza was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhen Hua Port Machinery Company (ZPMC) at Chang Xing Island in Shanghai, China. QA Inspector observed and/or found the following:

Trial Assembly

This QA Inspector performed verification Ultrasonic Testing (UT) in accordance with ABF/CT Pattern "D" UT Procedure 001 Revision 1. All recordable Indications if found were recorded on a data sheet that Caltrans QA generates after performing a joint inspection. The members are identified as the weld between Edge panel and side panel (Counter Weight side) of OBG segment 9AW and 9BW. The weld designations are as follows

CA055-005

CA059-001

QA Inspector received verification request to perform Ultrasonic Testing (UT) members identified as the weld between Edge panel and side panel (Cross Beam side) of OBG segment 9AW and 9BW. The weld designations are as follows

CA056-001

SEG051A-039

---

## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

---

QA Inspector was unable to perform UT on this weld as the weld was cut to rectify misalignment between 9AW to 9 BW Side plate

See picture for more information

Bay 4

QA Inspector performed Phased Array Ultrasonic Testing (PAUT) following the guide lines of UT procedure titled "Phased Array Ultrasonic Testing for the Detection and Sizing of Suspected Planar Discontinuities (Cracks) in PJP Welds, # UT 04-0120F4 PJP Rib Weld" after ZPMC welding personnel performed weld repairs of tacked areas of the Partial Joint Penetration (PJP) welds joining u-ribs to deck plate. The deck panels examined are as follows:

DP3120-001: 1 tack weld locations found compliant and 0 tack weld locations found non-compliant.

DP3123-001: 29 tack weld locations found compliant and 12 tack weld locations found non-compliant.

DP3079-001: 22 tack weld locations found compliant and 0 tack weld locations found non-compliant.

DP3077-001: 1 tack weld locations found compliant and 1 tack weld locations found non-compliant.

Tack weld locations found non-compliant are marked on U-rib and deck plate for ZPMC's reference for repair. See Caltrans U-rib to Deck Panel- Tack Weld Assessment sheets dated 8th July, 2010 for further information on PAUT inspections.

This QA Inspector performed Magnetic Particle Testing (MT) of approximately 15% of the area previously tested by ZPMC MT personnel. This QA Inspector generated a TL-6028 MT report on this date. The weld designation numbers is as follows:

DP 3075-001- 001~010

QA Inspector performed Final Visual Inspection following the guide lines of AWS-D1.5 on Deck Panel assemblies including Partial Penetration (PJP) welds joining U-ribs to deck plate. The deck panels examined are as follows:

DP 3075-001: Final VT appears to comply with code and contract requirements.

QA Inspector performed Green Tagging activities following the green tagging procedure. The deck panels green tagged are as follows:

DP 3075-001: Green Tag Number 11859

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

---

## WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

---

9 AW to 9BW EP to SP CB side



### Summary of Conversations:

No relevant conversations.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

---

<b>Inspected By:</b>	Dsouza,Christopher	Quality Assurance Inspector
<b>Reviewed By:</b>	Carreon,Albert	QA Reviewer

---